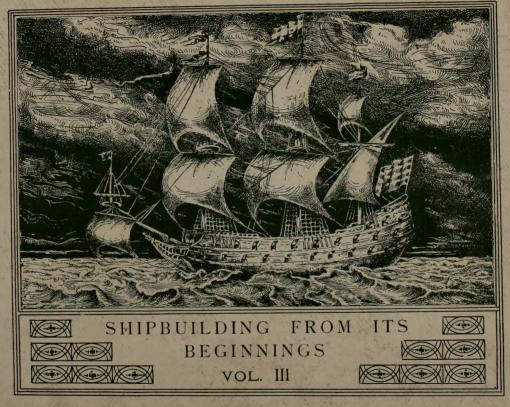
PERMANENT INTERNATIONAL ASSOCIATION

Navigation Congresses

38, Rue de Louvain, 38 BRUSSELS





SHIPBUILDING

ITS BEGINNINGS



SHIPBUILDING FROM ITS BEGINNINGS

BY

E. VAN KONIJNENBURG, C. E.,

ENGINEER OF THE RIJKSWATERSTAAT OF THE NETHERLANDS
1895-1905

PUBLISHED

BY

THE PERMANENT INTERNATIONAL ASSOCIATION

OF

CONGRESSES OF NAVIGATON

EXECUTIVE COMMITTEE — OFFICE OF THE SECRETARY GENERAL

38, RUE DE LOUVAIN, 38

BRUSSELS

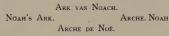
VOL. III



Voorstelling van Liranus (Van Yk). Nach Liranus. — According to Liranus. D'après Liranus (Van Yk).



Teekening (xvnc eeuw) Zeichnung (17. Jahrhundert). - Drawing of the 7th century Dessin du xVII° siècle.





Neurenberger Kroniek Nürnberger Chronik. - Chronicle of Nuremberg. Chronique de Nuremberg. Fig. 1.



Volgens Wilhelm Goeree.

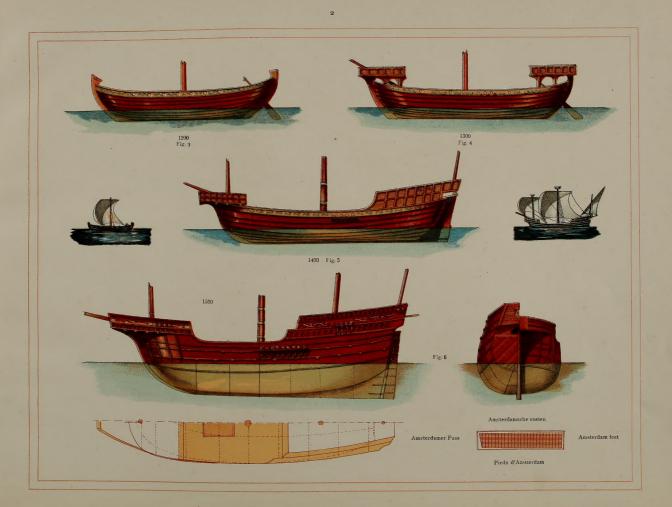
Nach Wilhelm Goeree. — According to Wilhelm Goeree. D'après Guillaume Goeree.



Volgens Van Yk.

Nach Van Yk. — According to Van Yk. D'après Van Yk.





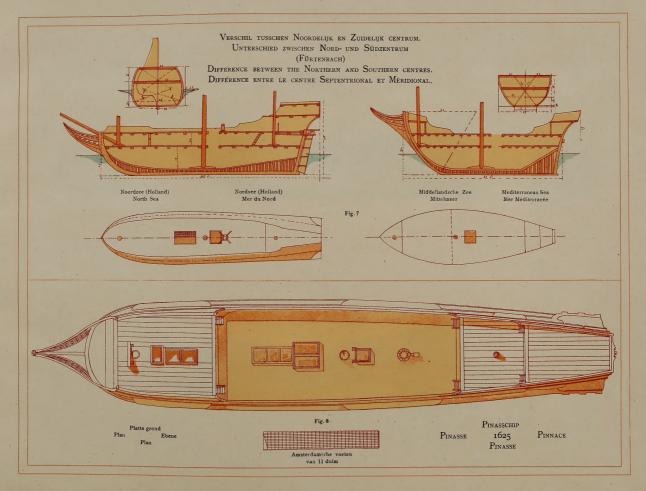
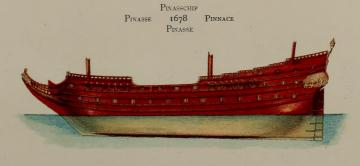
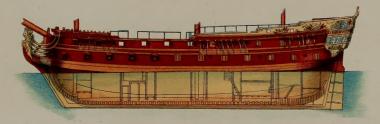


Fig. 8



Schip van oorlog — 50 kanonnen 1757



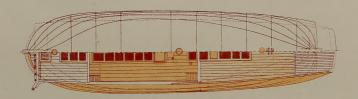


KRIEGSSCHIFF 50 KANONEN Man of war 50 guns Navire de guerre 50 canons

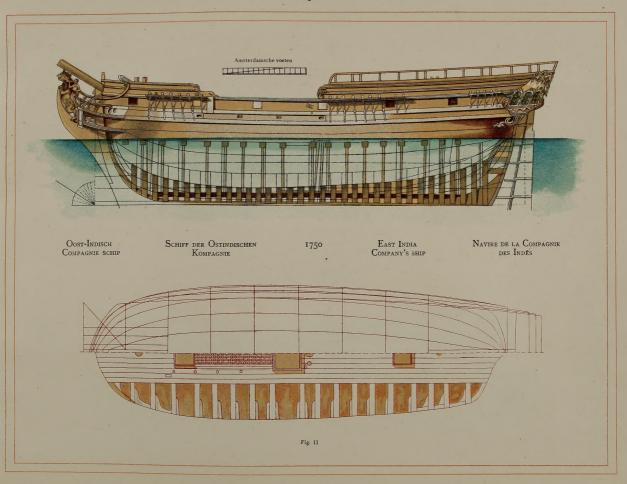


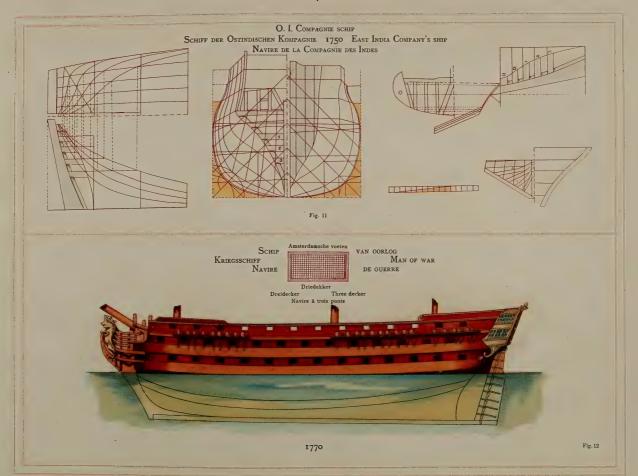
Amsterdamsche voeten

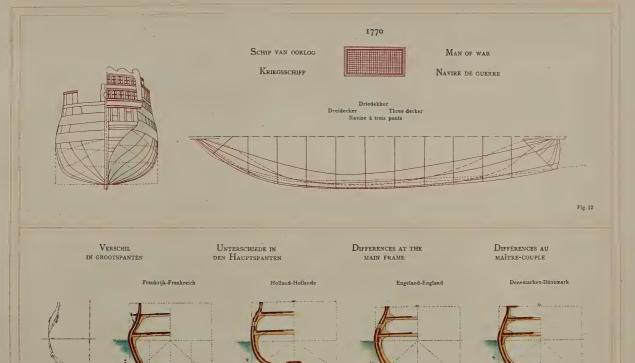












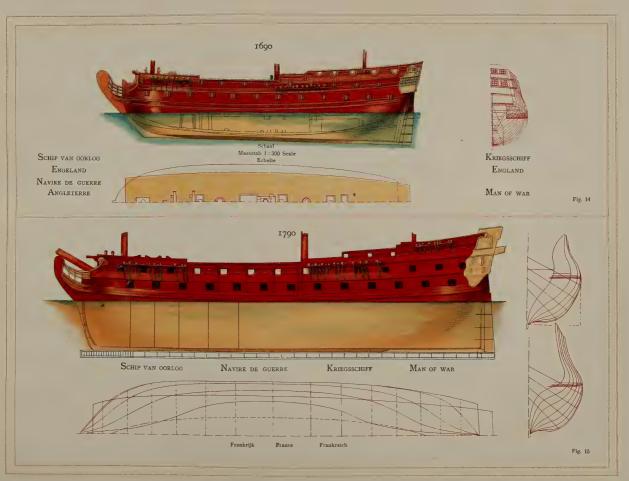
1750

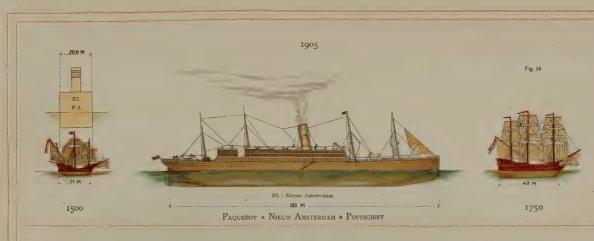
Amsterdamsche voeten

France

Denmark-Danemark

Angleterre









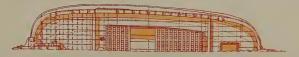


Fig. 17



Kustbewaarder met 12 ponder

KÜSTENWACHTSCHIFF MIT 12 KANONEN COAST GUARD CARRYING 12 PDRS

GARDE-COTE AVEC PIECES DE 12

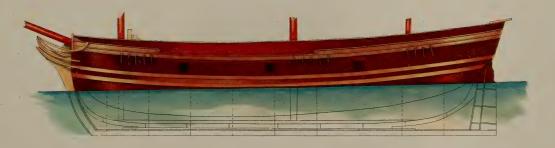
FREGATTE

FREGAT

FRIGATE

FRÉGATE

Schaal Massstab 1 : 175 Scale Echelle



Koopvardijschip

Kauffahrteischiff 1800 Merchant Ship
Navire marchand

Fig. 18

Fig. 19

Voorschip Schiffsvorderteil — Bow Proue

FLUIT 1803 FLÛTE

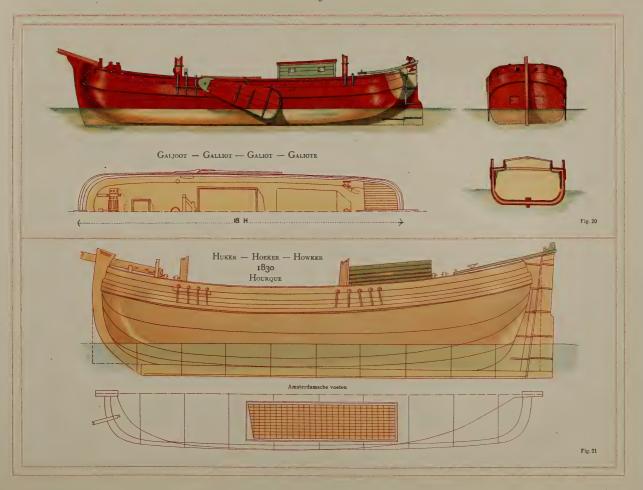
3 FLÜTE

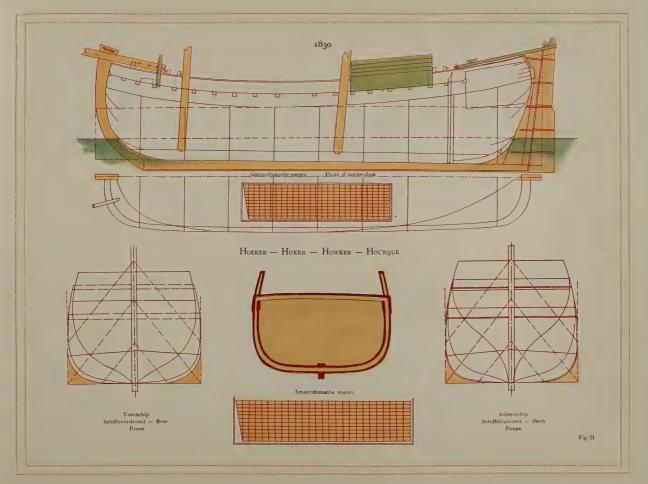


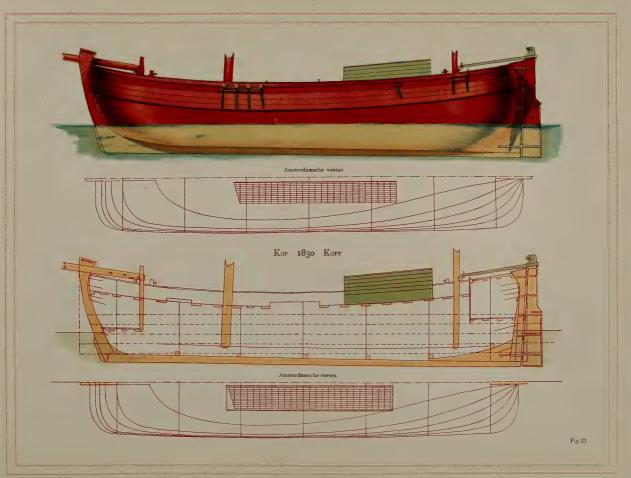
Amsterd, voeten

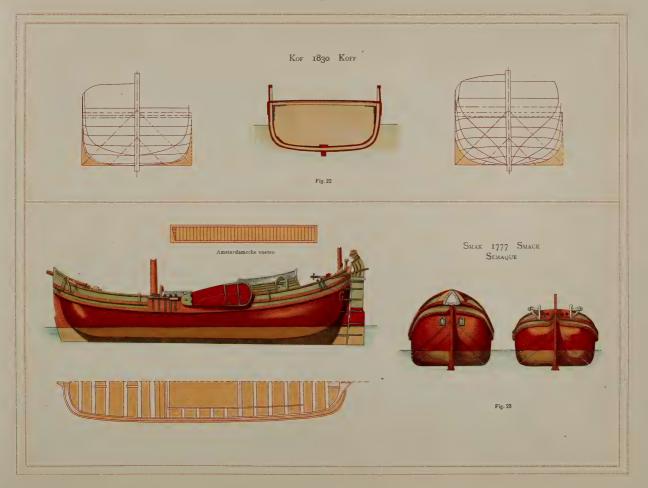
Achterschip Schiffshinterteil — Stern

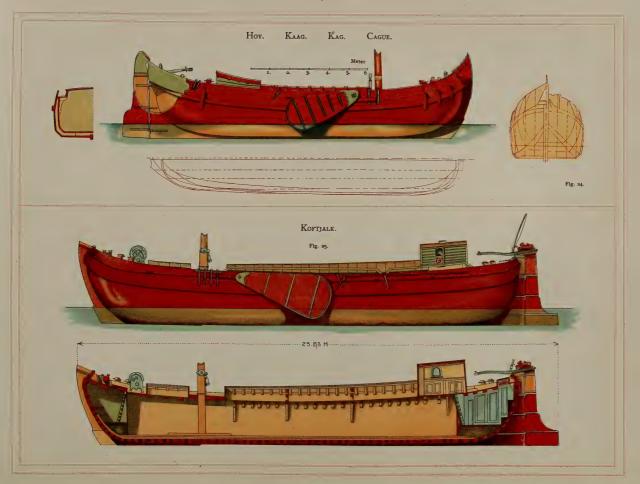
Poupe





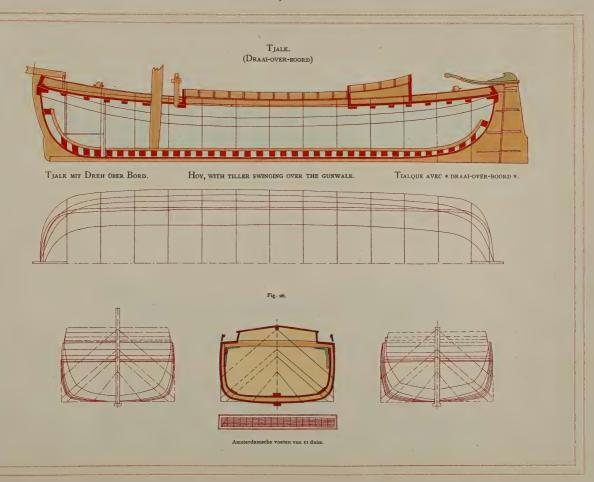






Koftjalk. Fig. 25. Tjalk. (Draai-over-boord) TJALK MIT DREH ÜBER BORD. TIALQUE AVEC « DRAAI-OVER-BOORD ». Hoy, with tiller swinging over the gunwale.

Fig. 26.



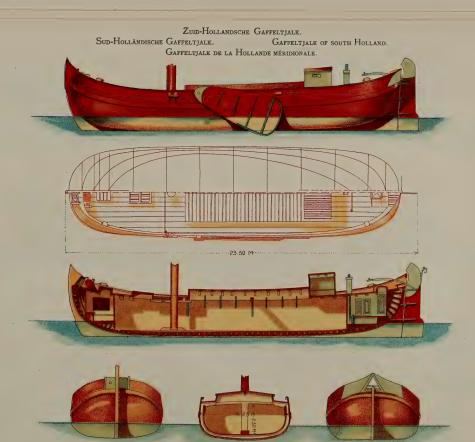
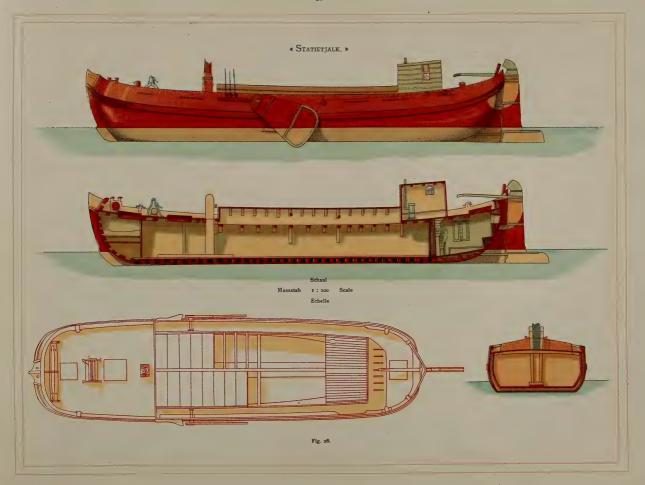
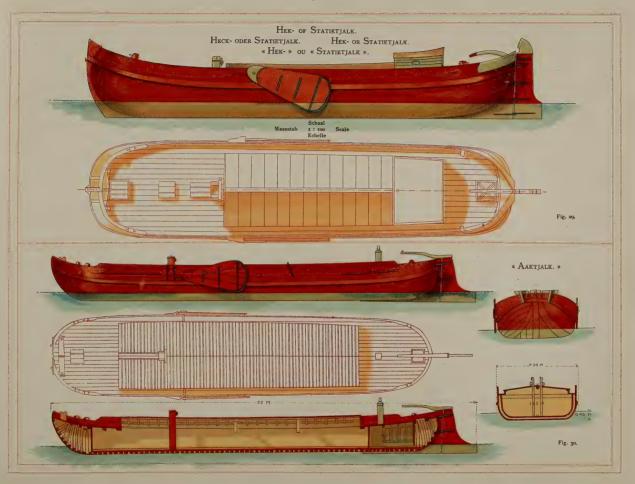
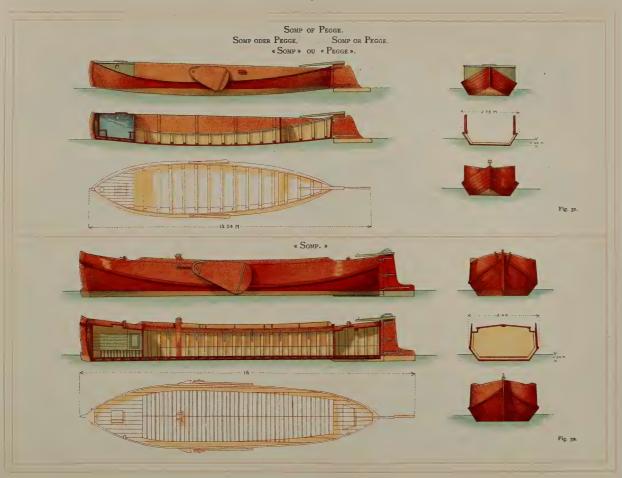
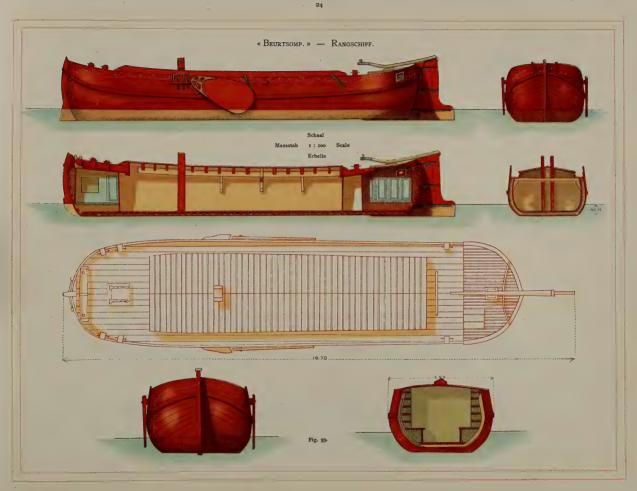


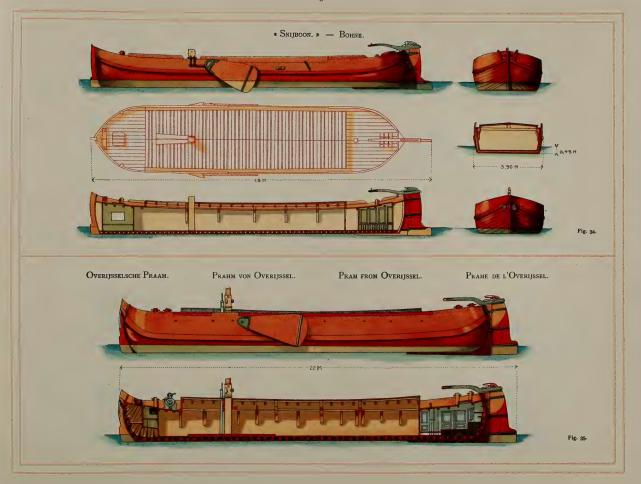
Fig. 27.

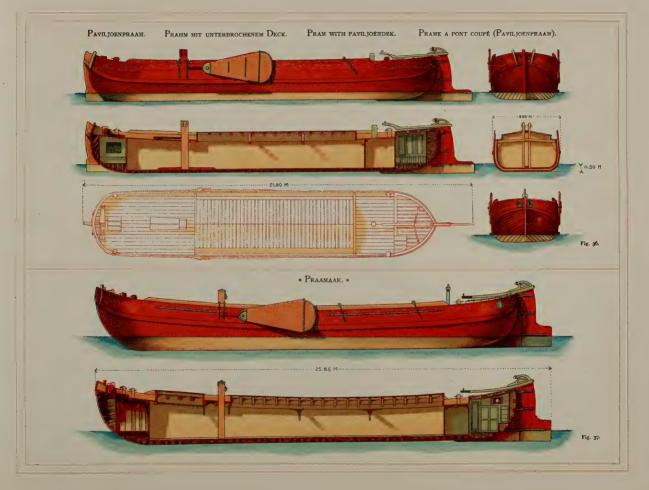


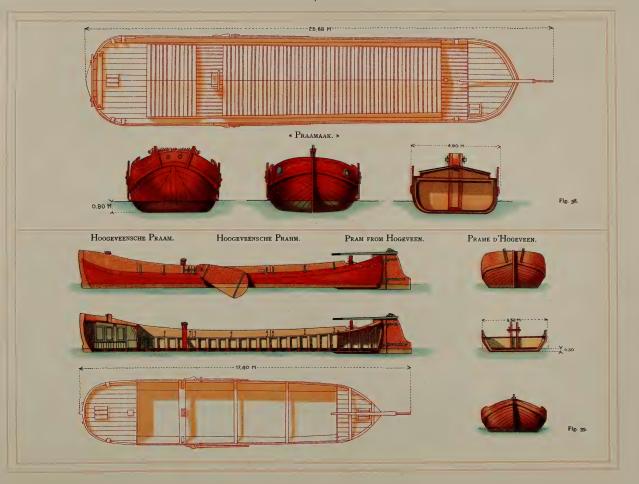


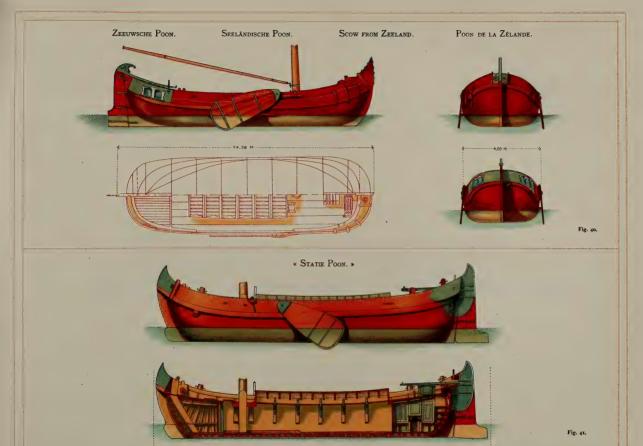


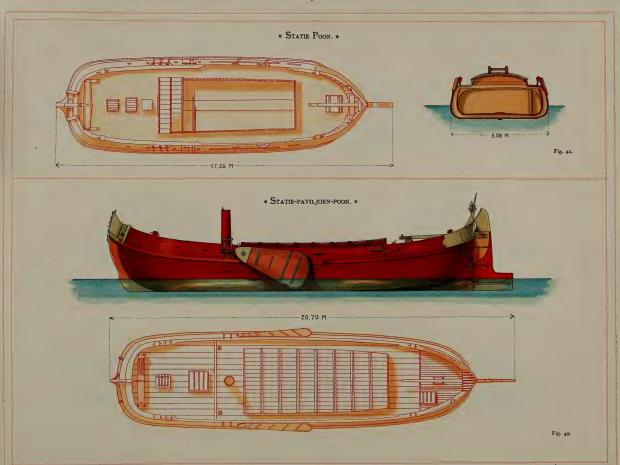












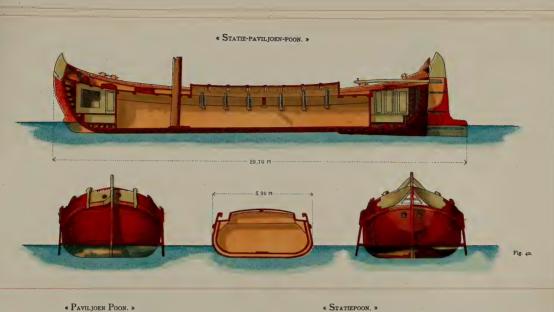
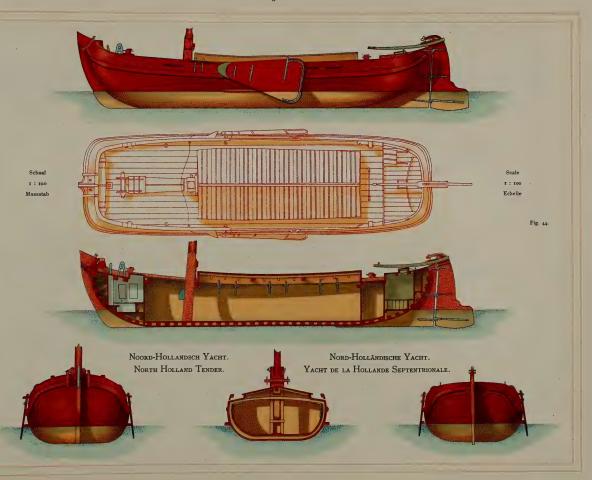
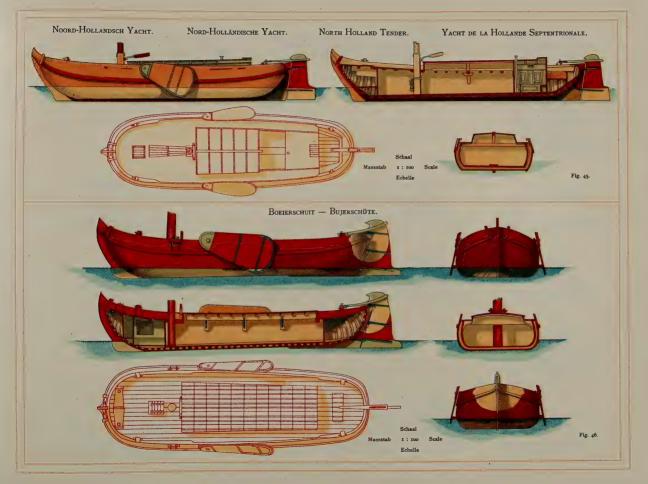


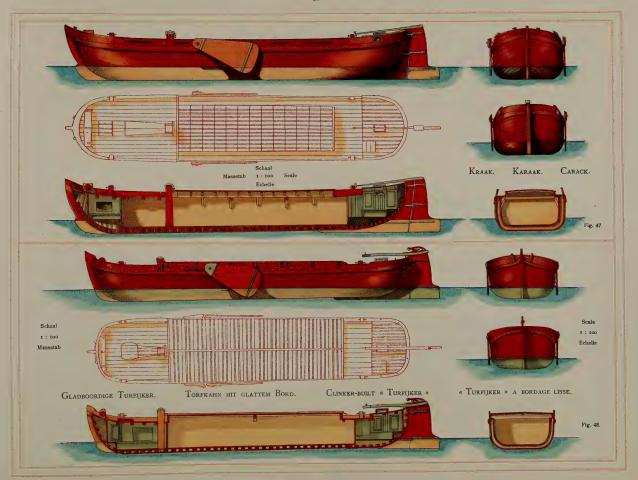


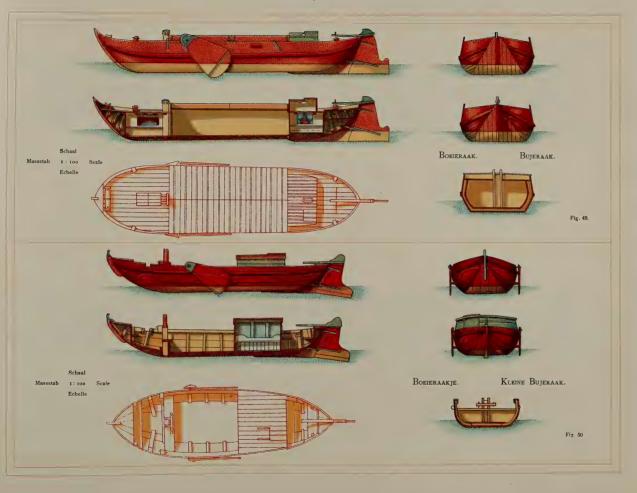


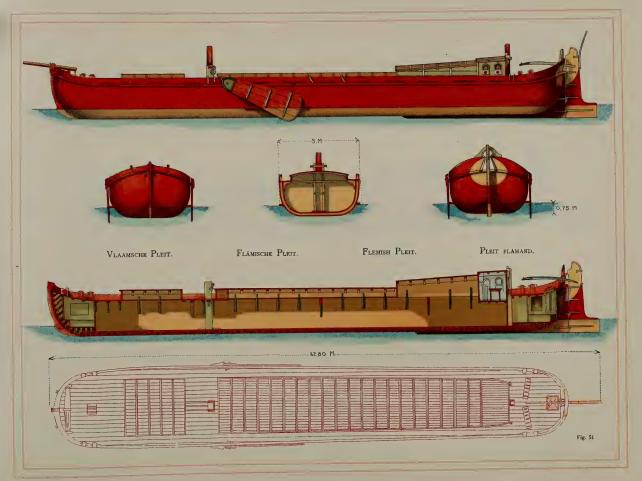
Fig. 43.

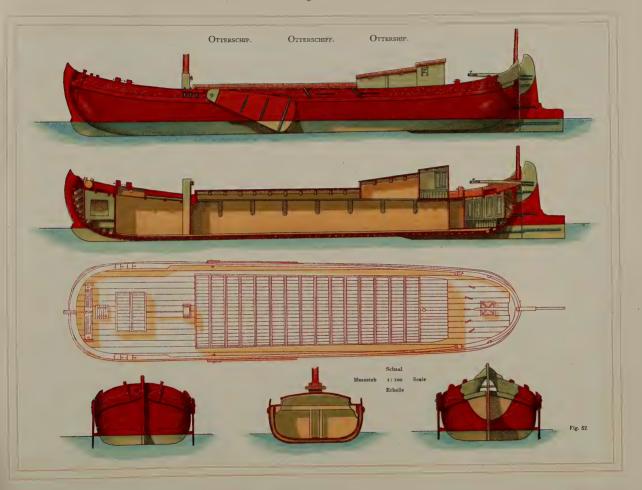


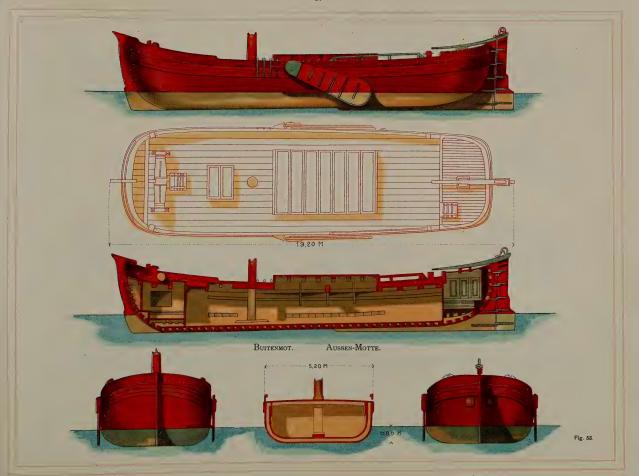


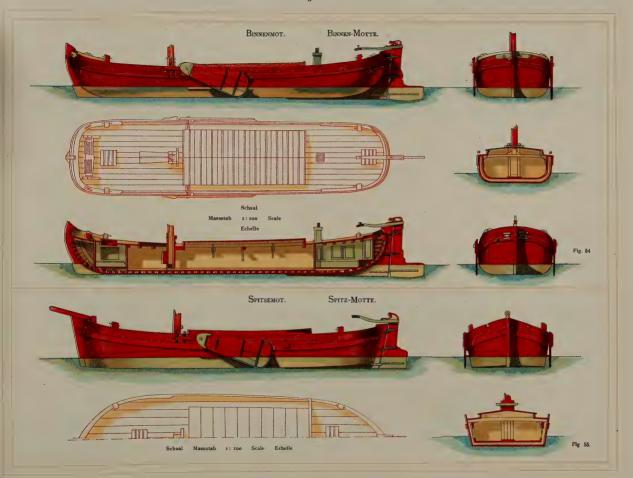


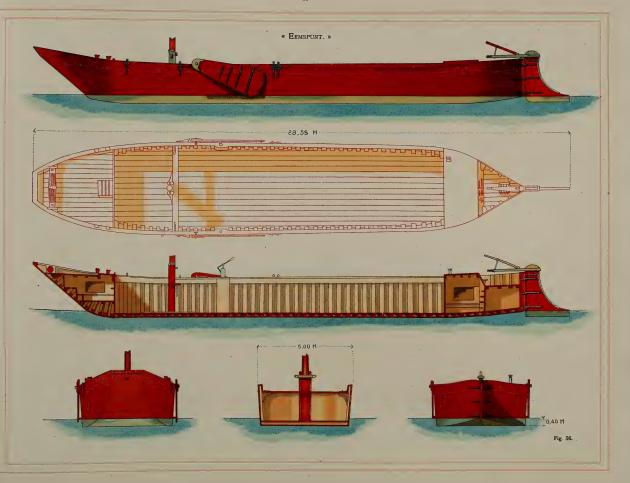


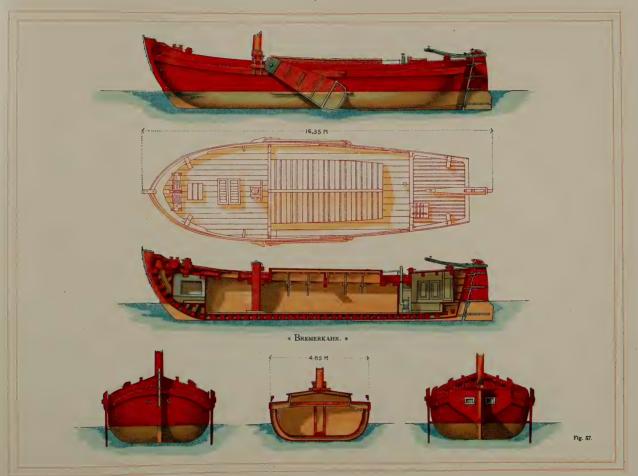


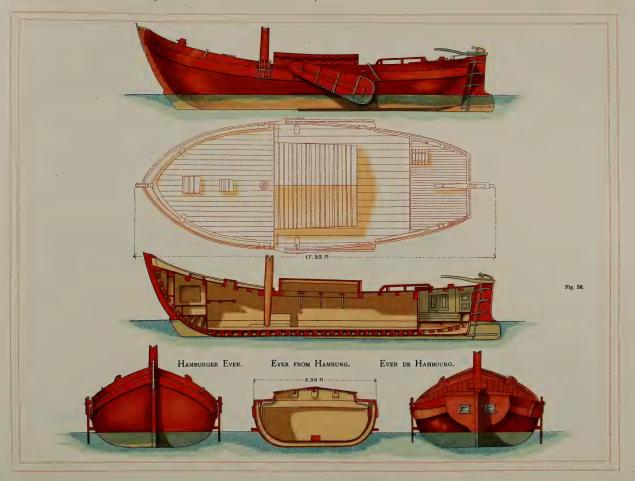


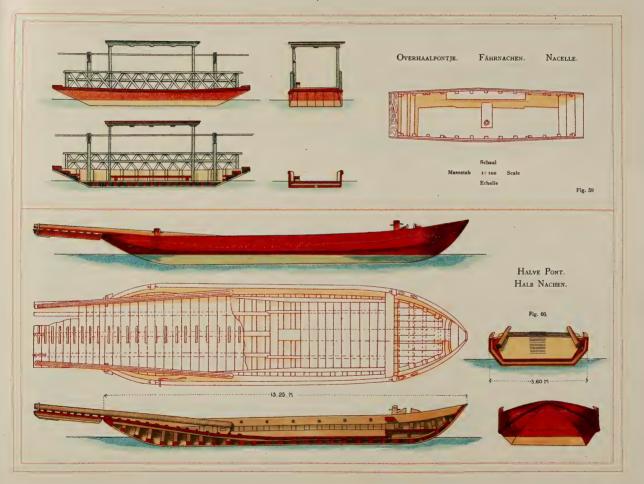


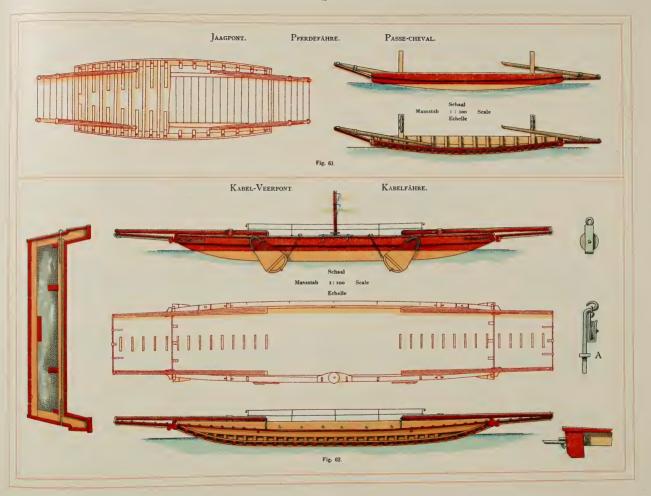


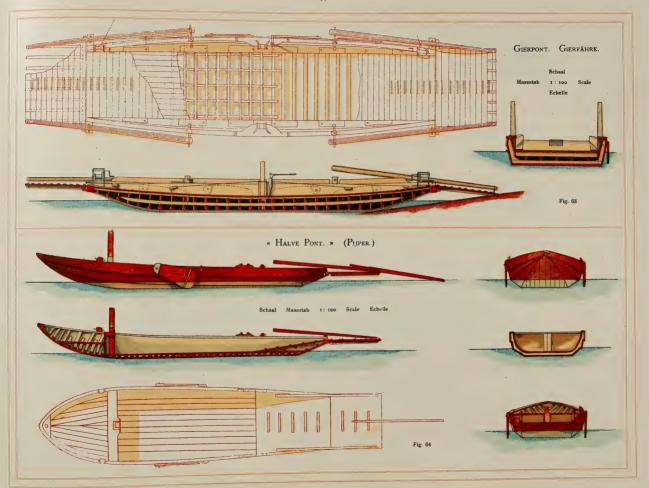


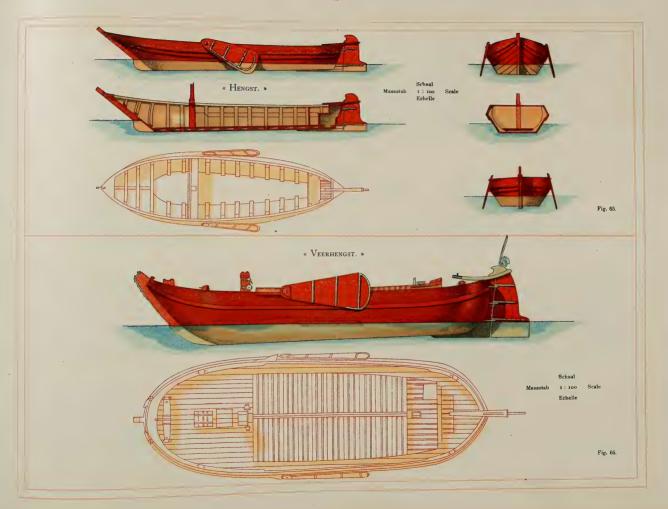


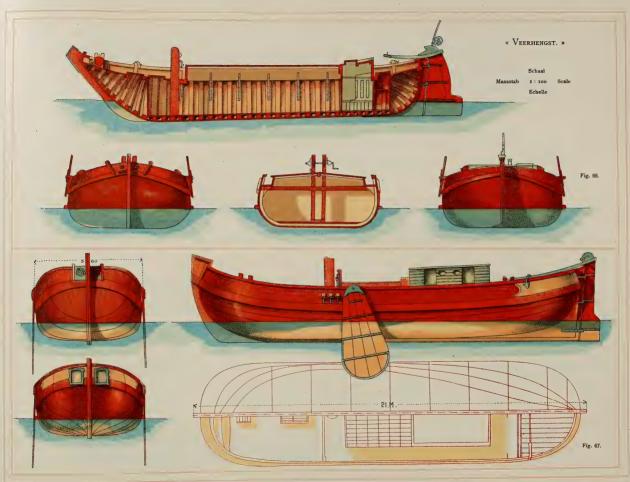






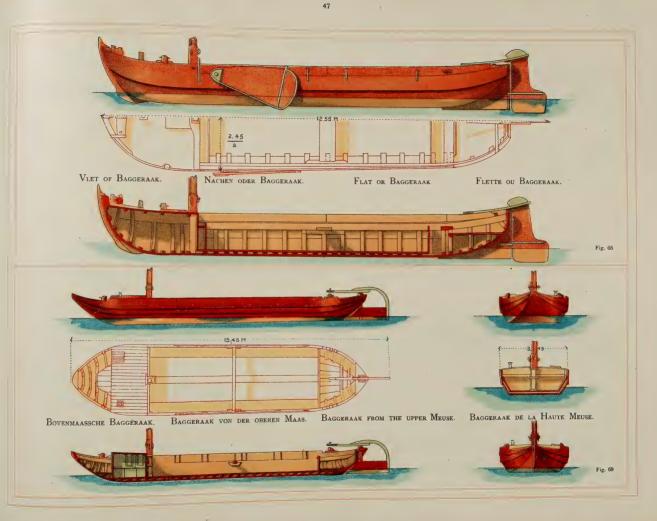


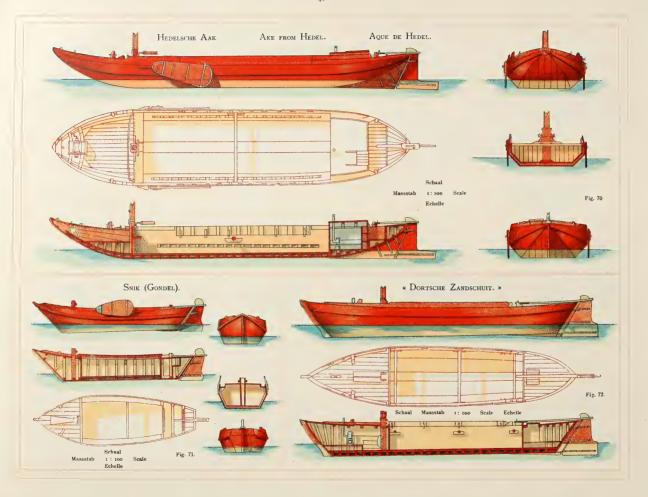


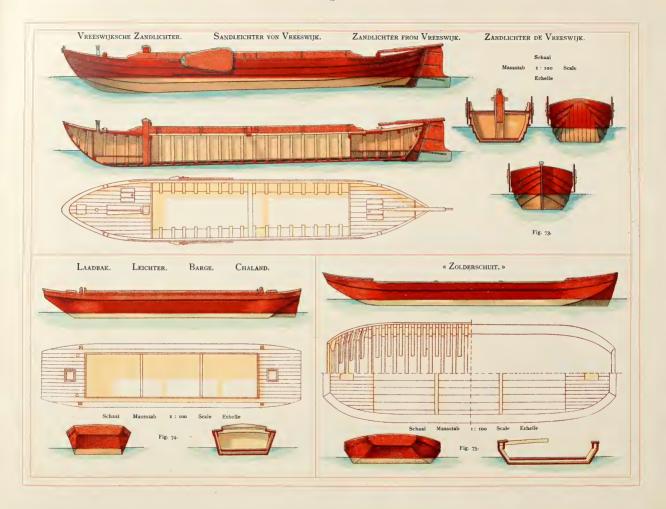


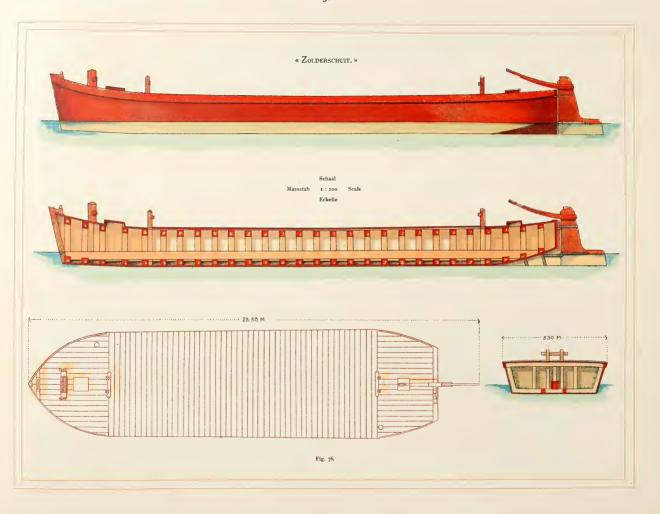
VEERMAN VAN LEMMER OP AMSTERDAM.
VEERMAN FROM LEMMER TO AMSTERDAM.

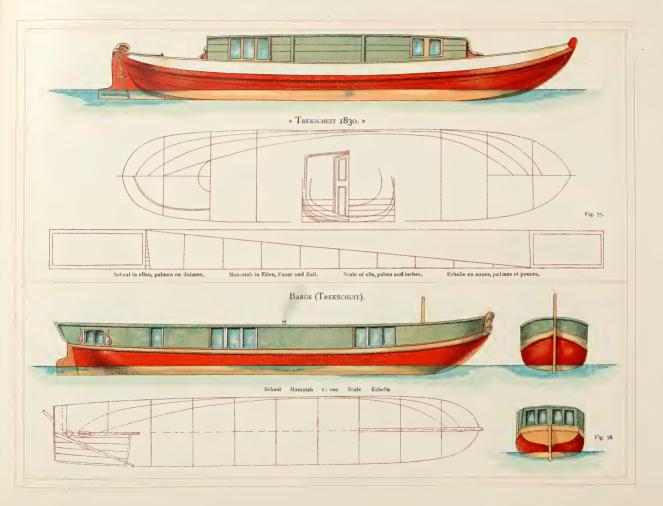
Fährkahn von Lemmer in Amsterdam. Veerman de Lemmer a Amsterdam.

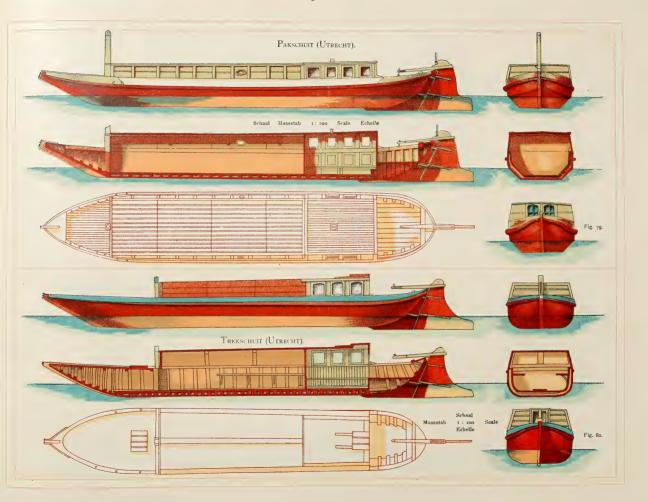


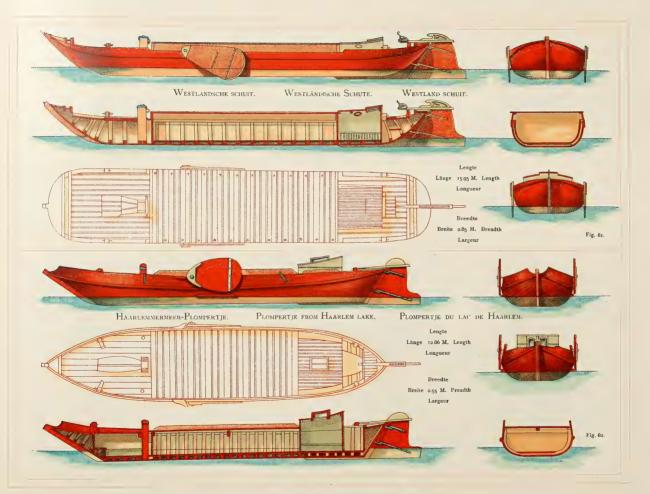


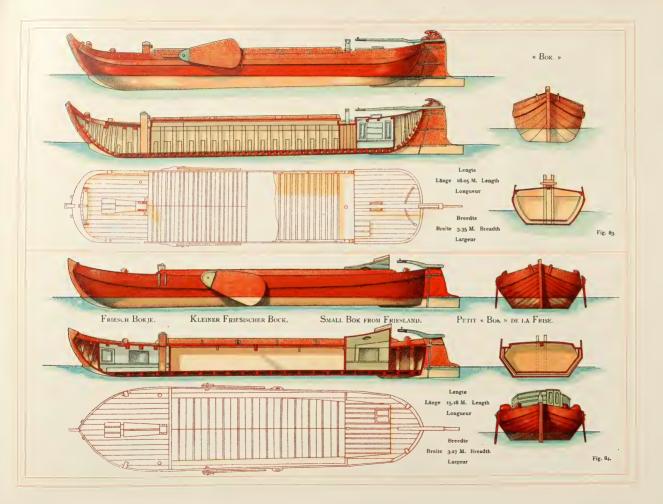


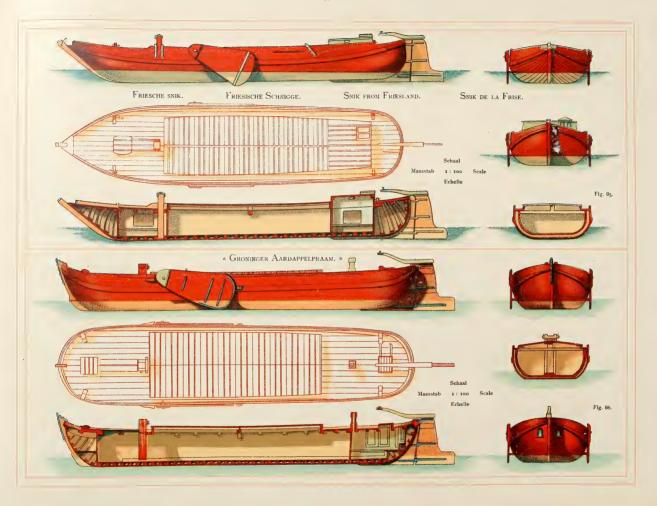


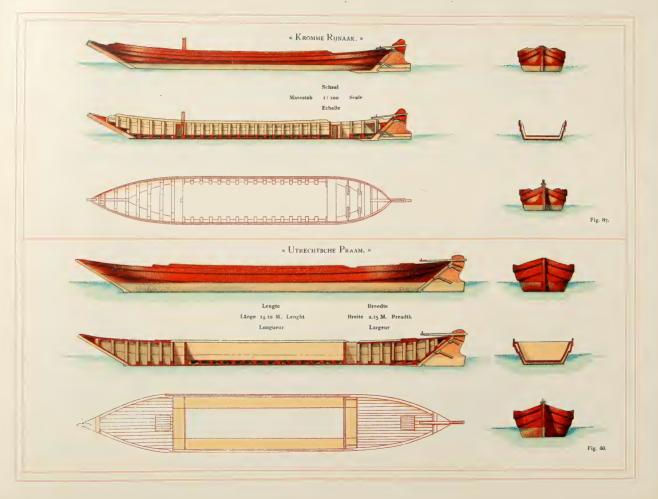


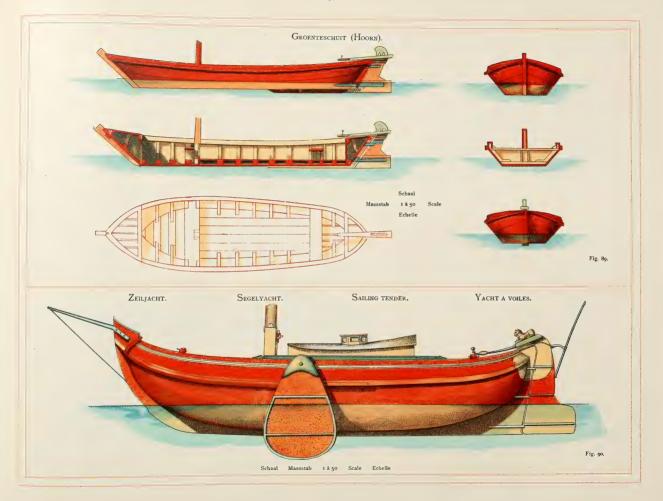


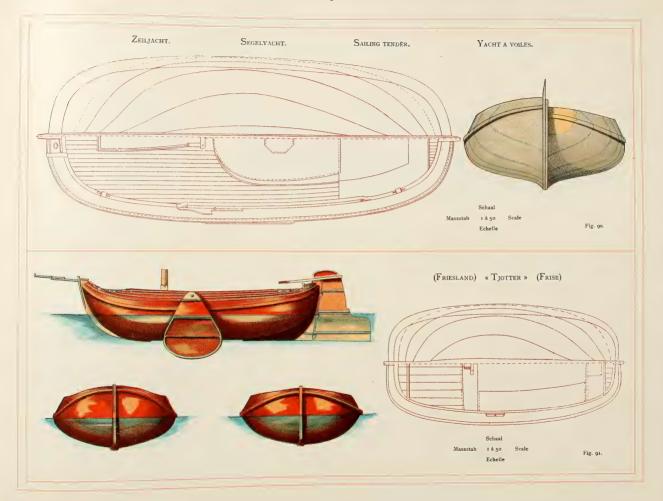


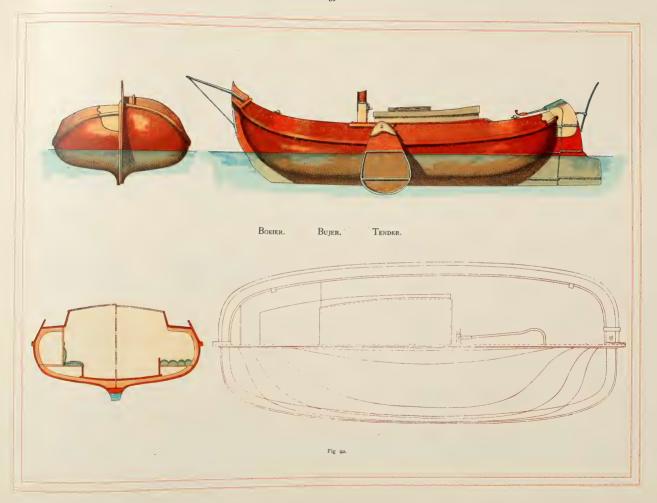


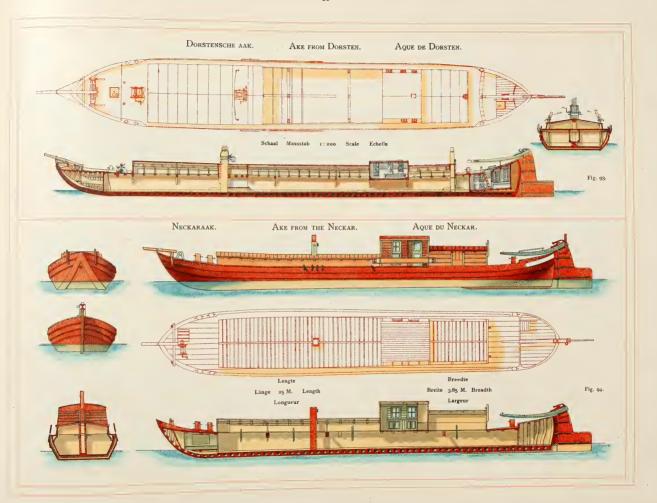












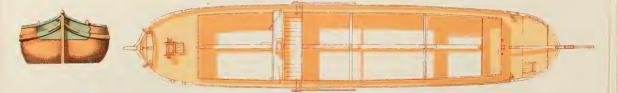


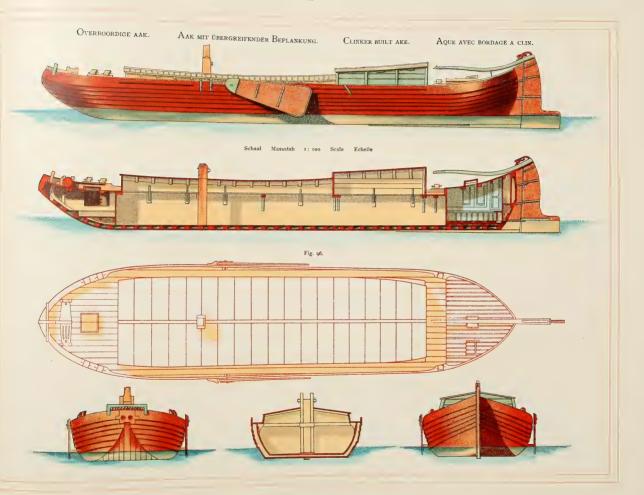
« Stevenschip, »

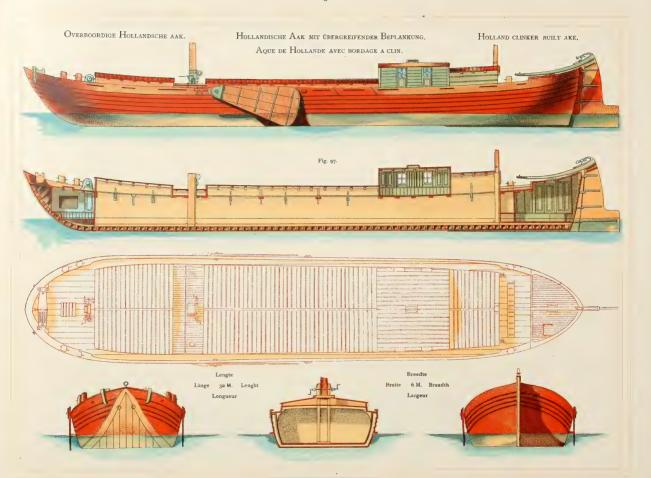


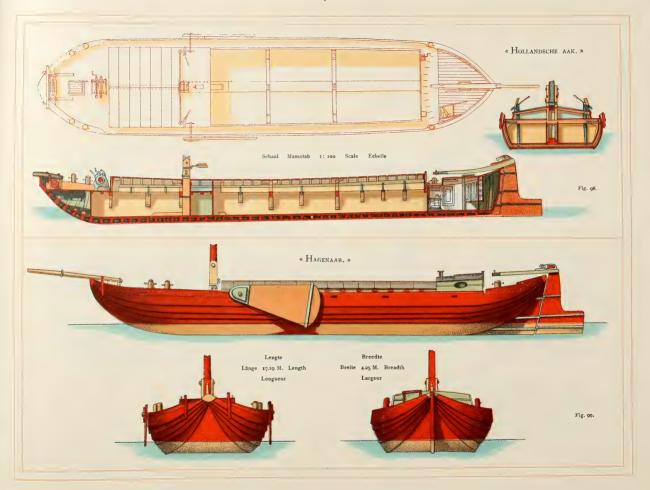
Länge 31.85 M. Lenght
Longueur

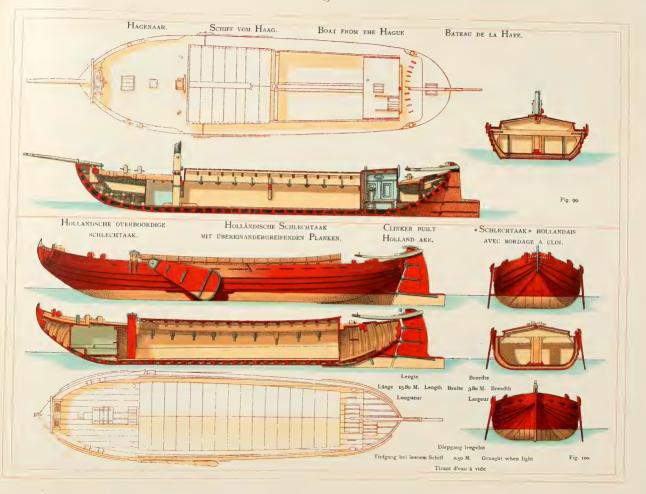
Breedte
Breite 5.80 M. Breadth
Largeur

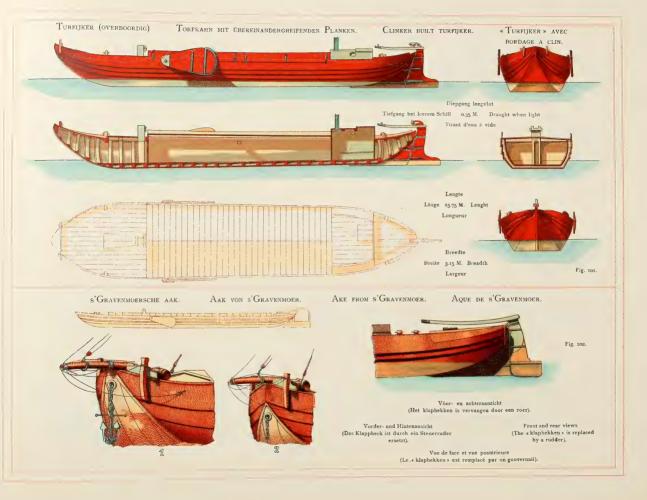


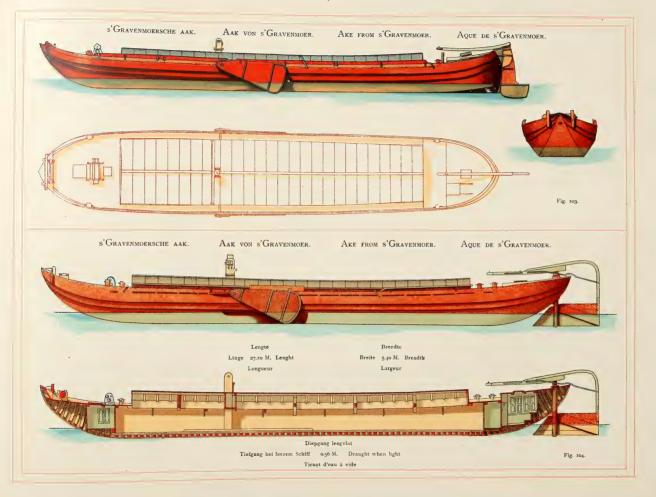


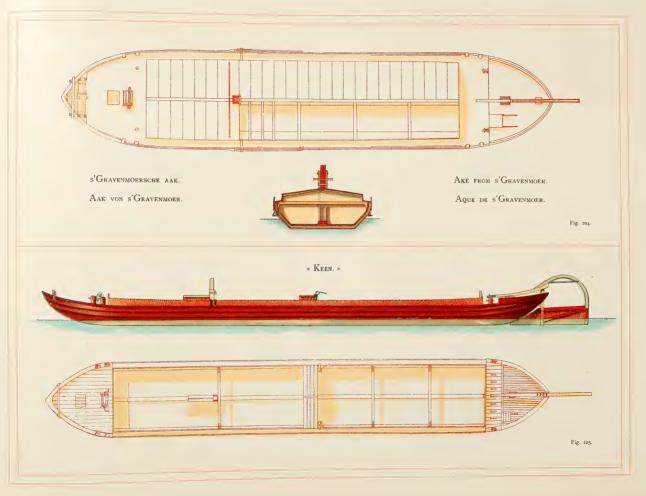


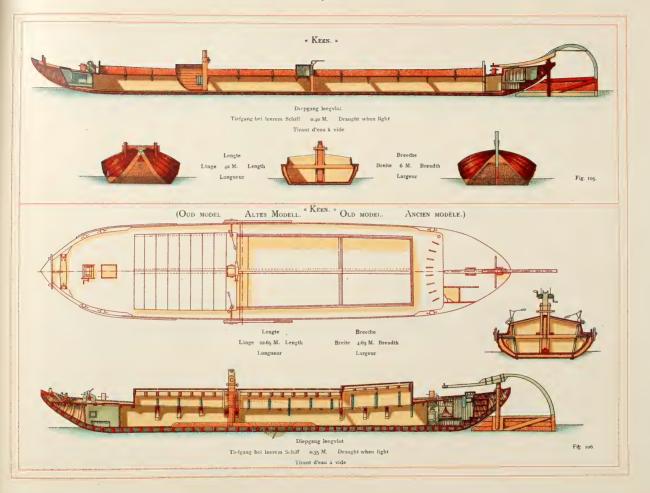


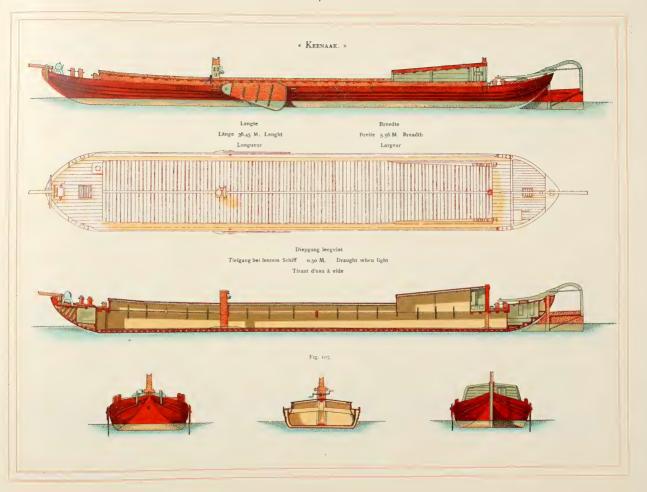


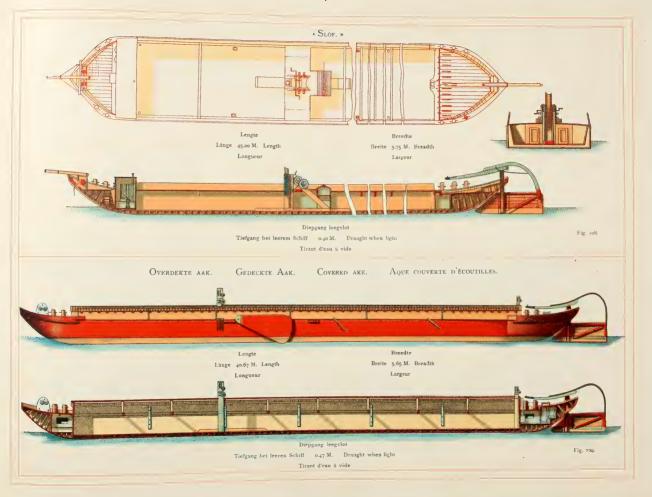


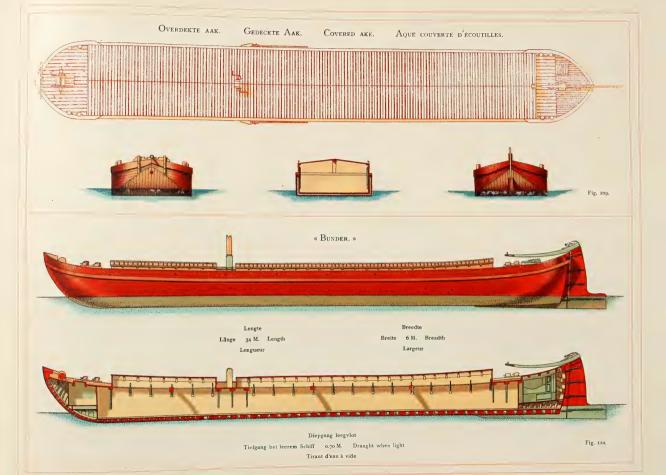


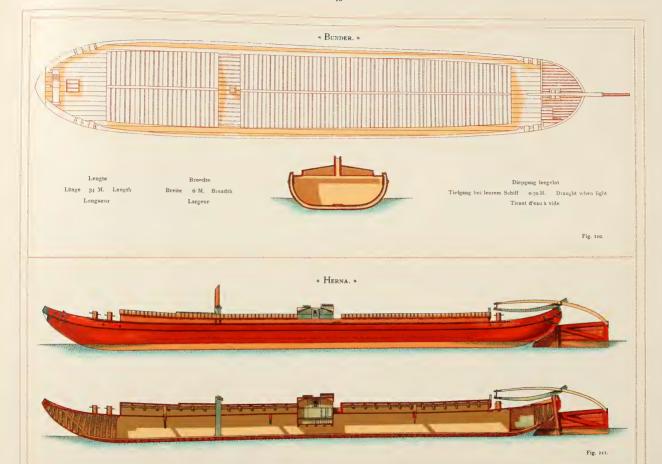


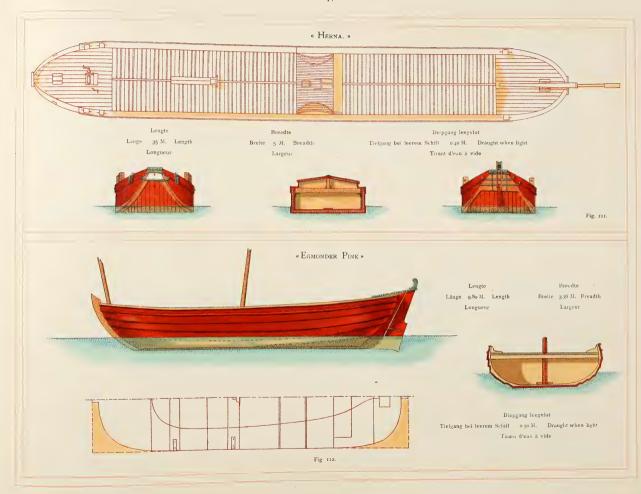


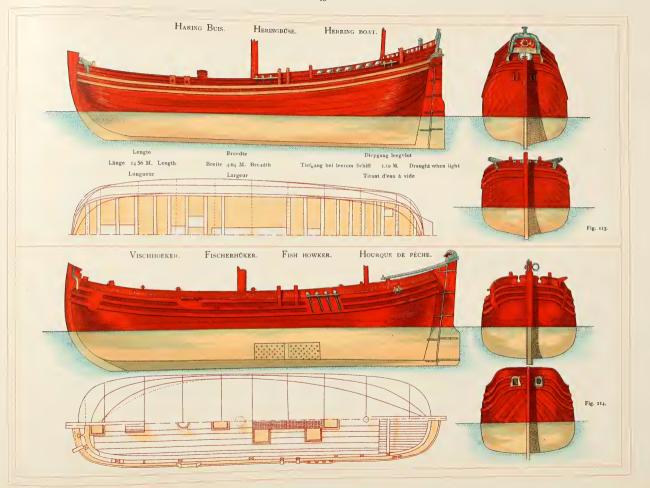






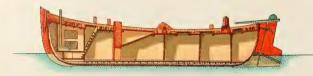










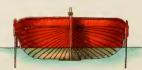


Lengte
Läuge 12 M. Length
Longueur

Breite 6 M. Breadth
Largeur



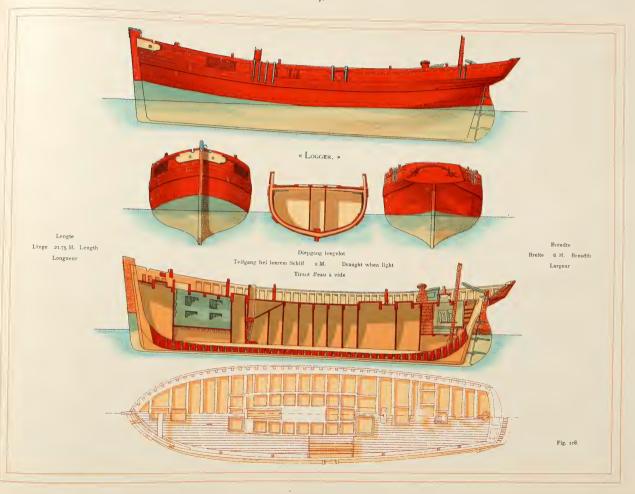


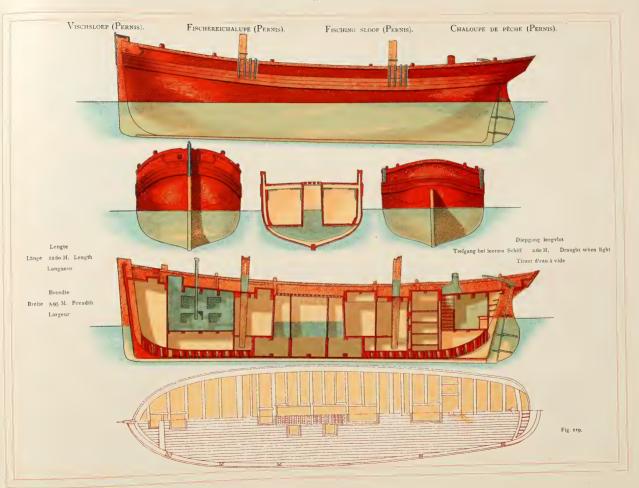


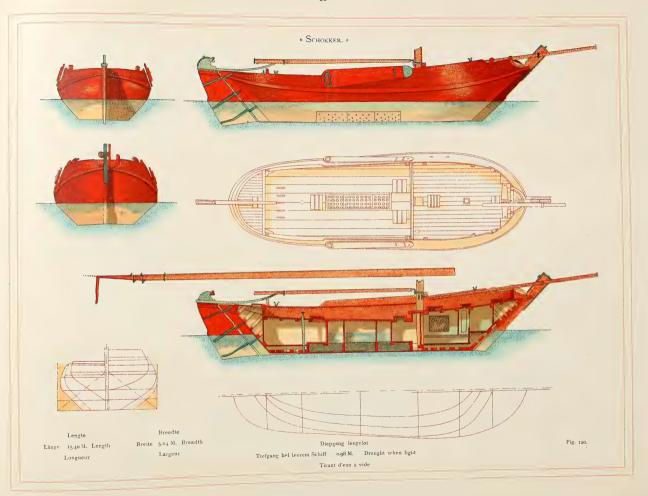
Diepgang leegvlot
Tiefgang bei leerem Schiff o.80 M. Draught when light
Ti ant d'eau à vide

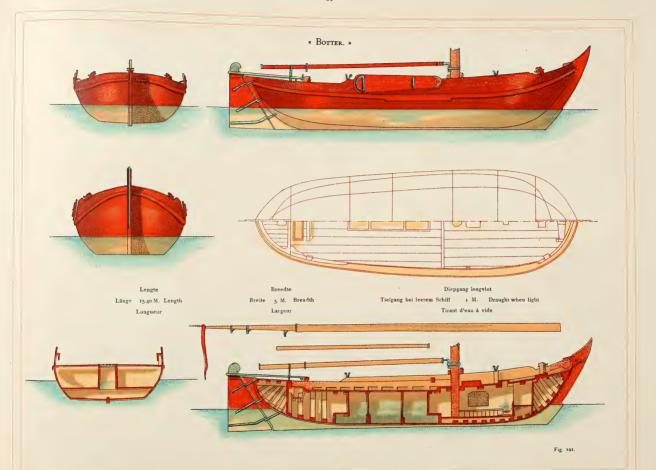
GARNALEN SCHUITIE. KRABBENFISCHEREIBARKE. SHRIMPER. BARQUE DE PÊCHE AUX CREVETTES. Lengte Breedte Diepgang leegvlot Lange 7.10 M. Length Breite 3.20 M. Breadth Tiefgang bei leerem Schiff 0.90 M. Draught when light Longueur Largeur Tirant d'eau à vide Fig. 116. GARNALEN SCHUITIE MET BUN. Krabbenfischereibarke SHRIMPER WITH WATER WELL. BARQUE DE PÉCHE AUX CREVETTES MIT FISCHKASTEN. AVEC BANNETON. Diepgang leegvlot Lengte Breedte Tiefgang bei leerem Schiff o 90 M. Draught when light Breite 3.85 M. Breadth Länge 7.50 M. Length Tirant d'eau à vide Largeur Longueur

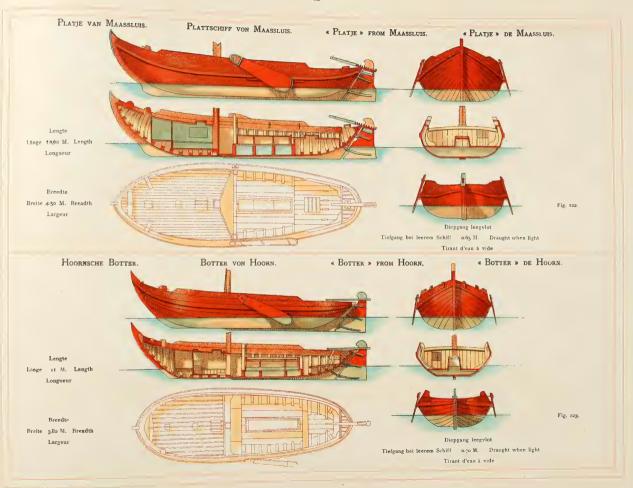
Fig. 117.

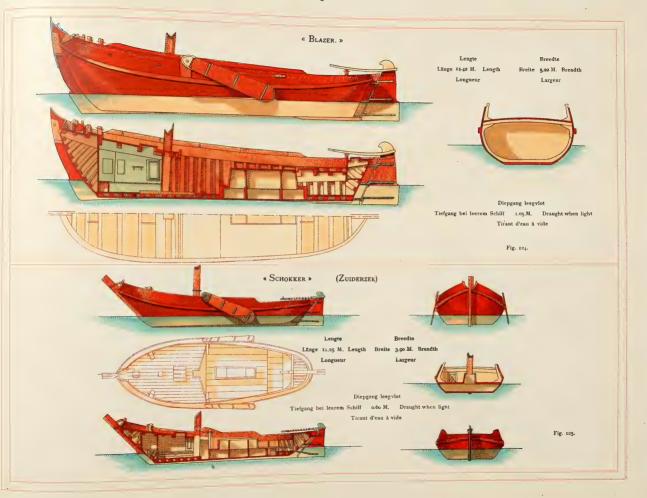


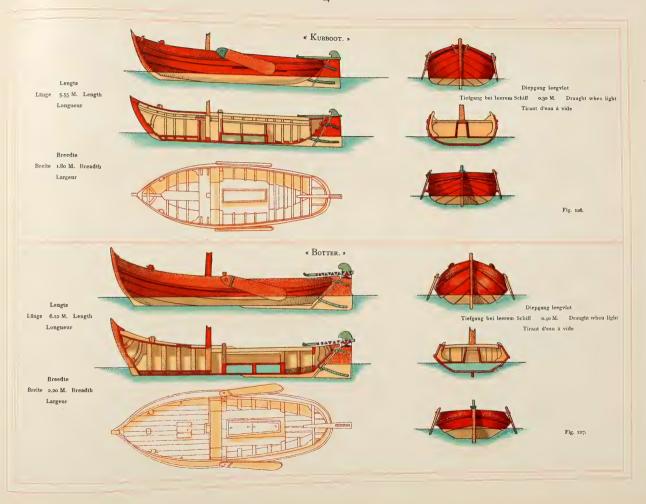


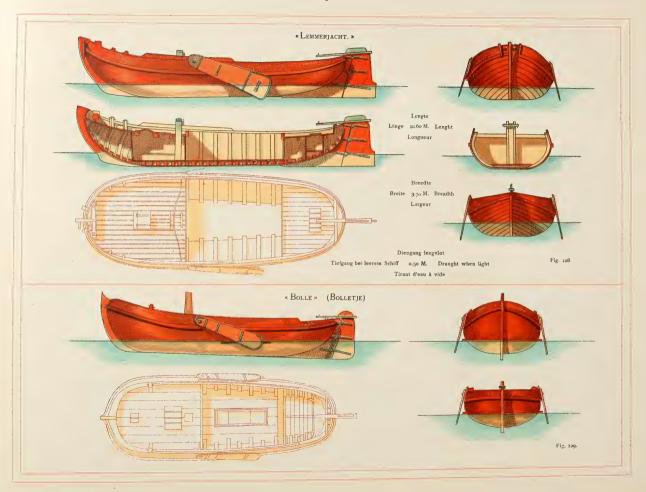










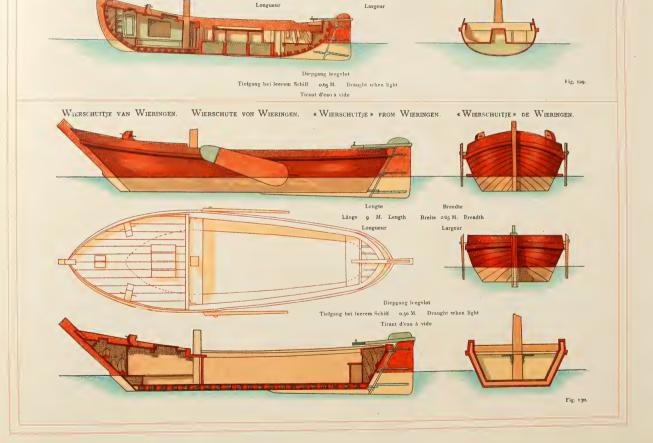


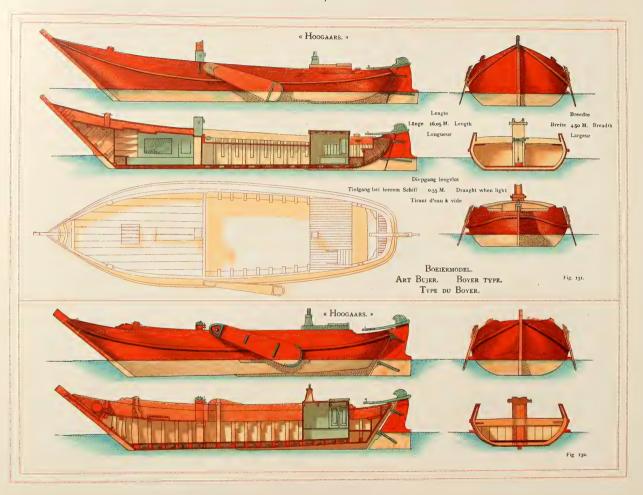
Breedte

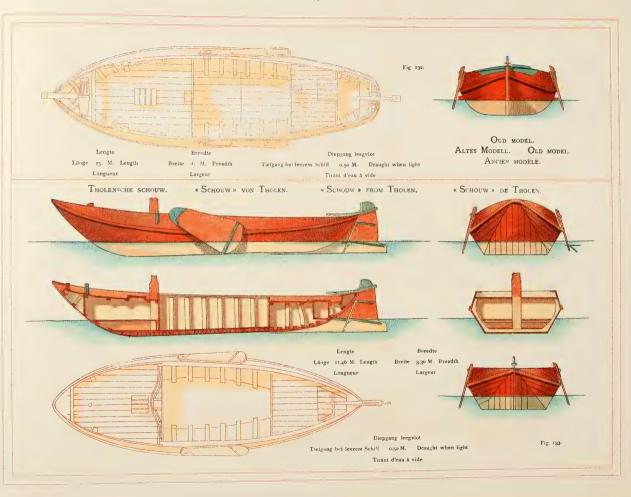
Breite 3.10. M. Breadth

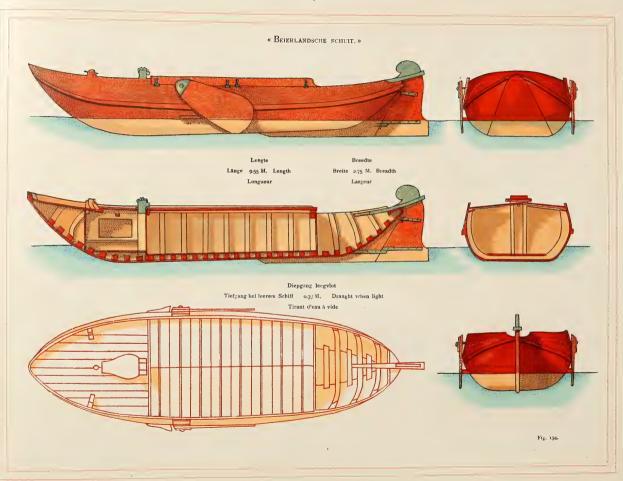
Lengte

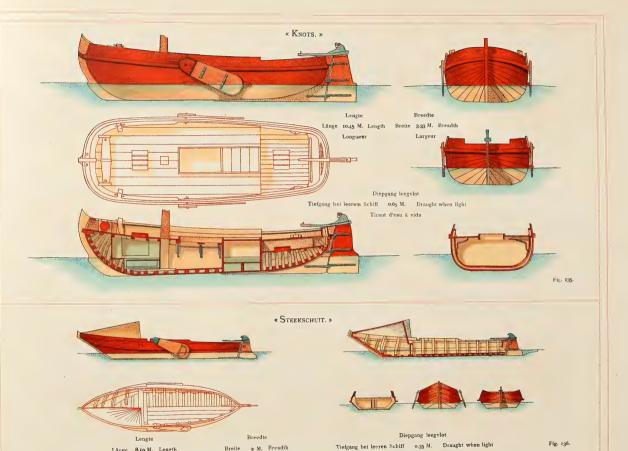
Lange 9.37 M. Length











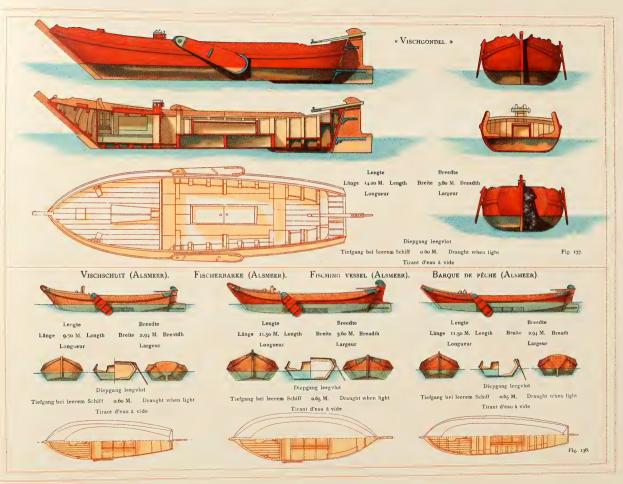
Tirant d'eau à vide

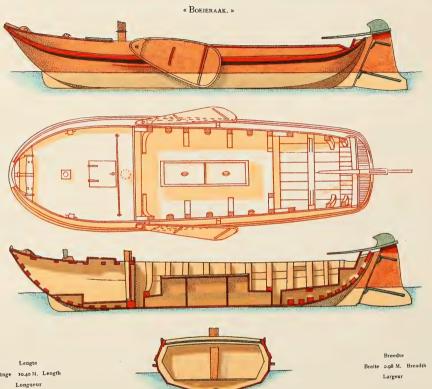
Breite 2 M. Breadth

Largeur

Länge 8.10 M. Length

Longueur



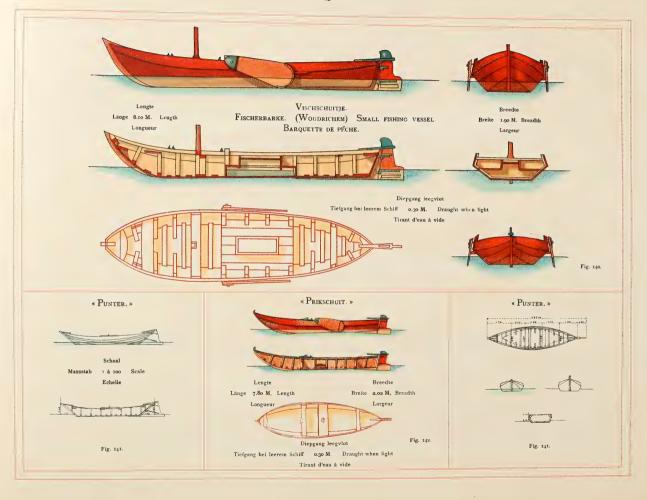


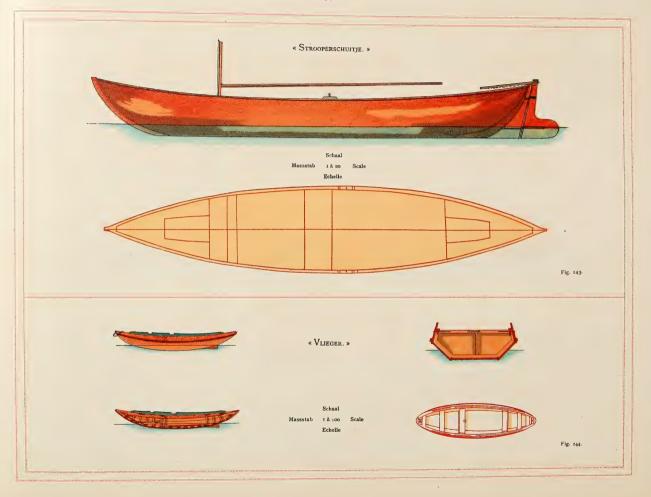
Länge 10.40 M. Length

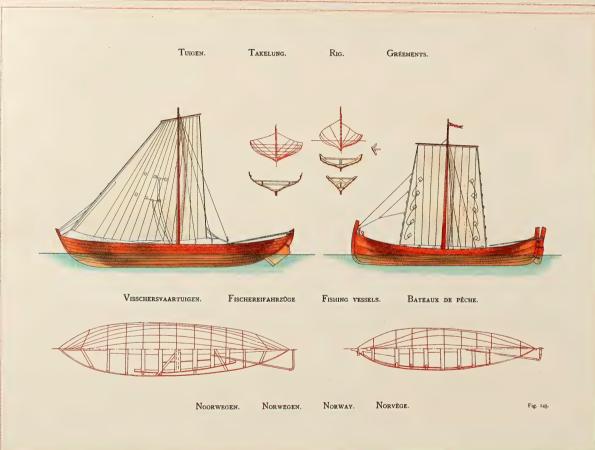


Diepgang leegvlot Tiefgang bei leerem Schiff 0.50 M. Draught when light Tirant d'eau à vide

Fig. 139.

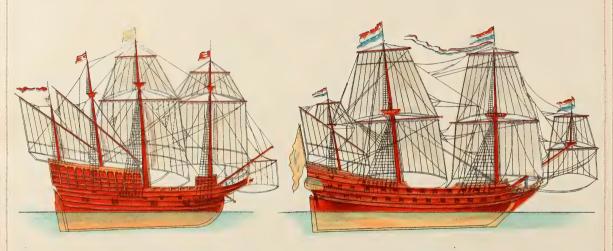






16° EEUW, 16. JAHRHUNDERT. 16TH CENTURY 16° SIECLE.

17° EEUW. 17. JAHRHUNDERT. 17TH CENTURY. 17° SIÈCLE.



1450

1650

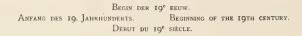
Nederland. Niederlande. Netherlands. Pays-Bas.

Schaal

Massstab 1 à 400 Scale

Echelle

Fig. 146.

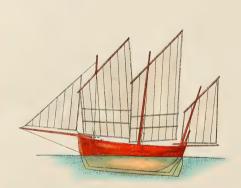


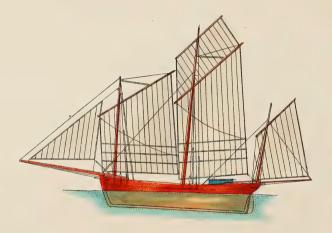


LOGGER.

LUGGER.

LOUGRE.





Schaal

Massstab 1 à 400 Scale

Echelle

Frankrijk.

Frankreich.

FRANCE.

Fig. 148.

NEDERLAND. NIEDERLANDE NETHERI ANDS PAYS-BAS. ANDERHALFMAST BEZAANTUIG. SPRIETTUIG (OUD MODEL). BEZAANTUIG. BESANTAKELUNG. BESAN RIG. SPRIETTAKELUNG (ALTE ART). SPRIT RIG (OLD FORM). BESANTAKELUNG BESAN RIG WITH I 1/2 MAST. MIT I 1/2 MAST. GRÉEMENT D'ARTIMON. GRÉEMENT A LIVARDE (TYPE ANCIEN). GRÉEMENT D'ARTIMON A I 1/2 MAT. SPRIETTUIG (NIEUW MODEL). BEZAANTUIG MET BEWEEGBARE STENG.

Gaffeltuig.
Gaffeltakelung. Fore and aft rig.
Gréement en aurique.

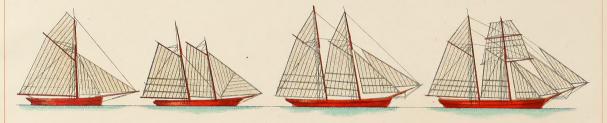
Spriettuig (Nieuw model).

Spriettakelung Sprit rig (Neue Art). (New form).

Gréement a livarde (Type Nouveau).

Kubboottuig.
Kubboottakelung. Kubboot rig.
Gréement a Kubboot.

BEZAANTUIG MET BEWEEGBARE STENG
BESANTAKELUNG MIT
BEWEGLICHER STENGE.
GRÉEMENT D'ARTIMON A MAT
DE HUNE MOBILE.



KOTTERTUIG.
KUTTERTAKELUNG. CUTTER RIG.
GREEMENT EN COTRE.

Schoenertuig. Schonertakelung. Schooner rig. Greement en goëlette.

Topseilschoener.
Topseilschoner.
Topseilschoner.
Goelette carrée.



Brigantein.

Brigantine. Brigantine.

Brigantine.



Driemastschoener.

Dreimastschoner.

Three-masted schooner.

Goëlette a trois mats.



Schoenerbrik,
Schonerbrick. Hermaphrodite brig.
Schoenerbrik.

Fig. 150.



